

## Claims

1. A digital certificate, the certificate comprising a credential attribute function associated with a credential attribute property, which credential attribute property can have a plurality of values, which credential attribute function is embedded in the digital certificate as an executable file, in which the credential attribute function can determine the value of the credential attribute property at least partly by execution of the executable file.
2. A digital certificate according to claim 1, in which there is provided a digital certificate comprising a credential attribute and at least one credential attribute property, the digital certificate having a valid period, and a credential attribute function associated with the at least one credential attribute property, which function determines the value of the credential attribute property within the valid period.
3. A digital certificate according to claim 1, in which the credential attribute function varies the credential attribute property value as a function of time.
4. A digital certificate according to claim 3, in which the credential attribute function is monotonically decreasing over time.
5. A digital certificate according to claim 1, in which the credential attribute function is configured to

determine the credential attribute property value automatically.

- 5 6. A digital certificate according to claim 1, in which execution of the executable file fully can determine the credential attribute property value.
- 10 7. A digital certificate according to claim 1, in which the executable file is a platform portable code.
- 15 8. A digital certificate according to claim 1, in which the credential attribute property comprises a value operated on by the credential attribute function to determine a credential attribute property value.
- 20 9. A digital certificate according to claim 1, in which the credential attribute function uses data obtained from outside the digital certificate to determine the credential attribute property value.
- 25 10. A digital certificate according to claim 9, in which the data obtained is obtained from a user by the input of data in response to a query generated by the credential attribute function.
- 30 11. A digital certificate according to claim 9, in which the data obtained is obtained from a digital data store.
12. A digital certificate according to claim 11, in which the digital data store is a web site.

13. A digital certificate according to claim 1, in which there is a plurality of credential attributes in the digital certificate.
- 5 14. A digital certificate according to claim 1, in which there is a plurality of credential attribute properties in the digital certificate.
- 10 15. A digital certificate according to claim 14, in which a plurality of the credential attribute properties have respective attribute functions.
- 15 16. A digital certificate according to claim 15, in which each credential attribute property has a respective attribute function.
- 20 17. A digital certificate according to claim 1, in which the digital certificate has a valid period and the credential attribute function determines the value of the credential attribute property within the valid period.
- 25 18. A digital certificate, the certificate comprising a credential attribute function with a credential attribute property, which credential attribute property can have a plurality of values, which credential attribute function is in the digital certificate as an executable program, in which the credential attribute function can at least in part by execution of the executable program determine the value of the credential attribute property.
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19. A digital certificate, the certificate comprising a credential attribute function with a credential attribute property, which credential attribute property can have a plurality of values, which credential attribute function is in the digital certificate as an executable file, in which the credential attribute function can at least in part by execution of the executable file determine the value of the credential attribute property automatically.

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20. A method of communication, which method comprises the steps of communicating from a sender to a recipient a digital certificate according to any preceding claim.

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21. A method of communication according to claim 20, in which the recipient inspects the digital certificate and the credential attribute property value is determined according to the credential attribute function.

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22. A method of communication according to claim 20, in which the communication at least in part is via a distributed electronic network.

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